

exploring premium products and innovative customer programs



ABAG POWER
Stakeholder Engagement Report

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INTRODUCTION

In December 2020, ABAG POWER's Executive Committee approved a staff request to initiate a process to identify and evaluate opportunities

for the program to offer beneficial premium products and innovative customer programs to its Membership. Commencing in early 2021, the Project Team-consisting of GPT (the Prime Contractor), EcoShift Consulting, Northstar Consulting, and Thad Malit Consulting-developed comprehensive Stakeholder Engagement Plan (SEP), as a means to conduct market research, and understand the

needs of the Membership and other stakeholders. This Stakeholder Engagement Report (SER) details the engagement process and outcomes, including a summary of all stakeholder meetings and events, as well as key findings.

The SEP outlined - and was later implemented by the Project Team - an exhaustive, multi-faceted approach for soliciting valuable input and perspective from current and prospective ABAG POWER Members, as well as key state agencies and regulators, peer energy organizations and utilities, potential program partners and allies, a wide range of gas industry experts and suppliers, and environmental organizations. ABAG POWER Members and key stakeholders

"THIS
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ENGAGEMENT REPORT
(SER) PROVIDES A
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OF THE ENGAGEMENT
PROCESS AND
OUTCOMES"

were convened for multiple Roundtable events designed to provide a forum for discussing the relative value of emerging premium gas product options, and related customer-facing program designs. Additionally, the team had numerous Focus Groups that allowed for in-depth discussions with stakeholders representing a diversity of interests, experiences, and perspectives on key issues. The Project Team hosted a number

of ad-hoc "Office Hours" for further discussion. Surveys were also sent to gather additional input.

There were two phases of the stakeholder engagement process, each taking three months to complete. There was a high level of stakeholder participation in the discussions and survey responses. This input will help inform and support the development of the roadmap that will outline how ABAG POWER can incorporate the purchase of premium gas products and also offer programs to the Membership.

ENGAGEMENT APPROACH

As jurisdictions throughout the Bay Area and beyond consider ways to reduce consumption of fossil fuels to combat climate change, ABAG POWER is evaluating the costs and benefits associated with a transition toward more sustainable alternatives to the conventional natural gas it currently buys and sells. These include premium products that originate from non-fossil sources such as methane from landfills and dairy farms, as well as other environmentally responsible products such as responsibly sourced gas and carbon offsets. With increased awareness of the aggressive nature of methane as a greenhouse1 and legislation such as new regulations relating to SB 1383 (California's Shortlived Climate Pollutant Strategy)² that directs all California jurisdictions procure more energy from landfill green waste, this study endeavors to identify opportunities for ABAG POWER to capitalize on available anthropogenic methane as a resource.

The Project Team used a rigorous stakeholder engagement process to examine how ABAG POWER can offer premium product solutions that will help Members reach their climate goals. By holding a suite of stakeholder events, the team collected feedback from Members and stakeholders on various energy products to better support a transition to renewable energy and to further reduce greenhouse gas emissions regionally. The goal was to foster discussion on a range of issues relating to the development, implementation, and market demand for new and expanded renewable energy products and programs.

This report summarizes our findings covering two rounds of outreach ending in October 2021.

The Project Team presented to the stakeholders a range of premium gas product options that have demonstrable associated environmental benefits, and that are currently available to ABAG POWER as a Core Transport Agent (CTA) operating in California.

All events were held online with various members of the Project Team presenting. After introductions, the team provided a brief overview of the initiative summarizing the goals and objectives, as shown below.

PRIMARY GOALS

- Support customer goals and objectives
- Support California goals and objectives
- Reduce portfolio emissions
- Develop premium product offerings
- Provide engaging and innovative programs

PRIMARY OBJECTIVES

- Identify and evaluate premium product options
- Identify and evaluate innovative program options
- Identify and explore potential partnerships
- Engage stakeholders to inform program designs
- Develop Program Implementation Roadmap

¹ U.S. EPA, Understanding Global Warming Potentials; available at: https://www.epa.gov/ghgemissions/understanding-global-warming-potentials

² SB 1383 requires jurisdictions and other government agencies to procure minimum quantities of specified products produced from diverted organic waste, including mulch, compost, electricity, and renewable natural gas. Complete information about SB 1383 can be accessed here: https://www.calrecycle.ca.gov/organics/slcp

PROPOSED PRODUCTS AND PROGRAM DESIGN

During the engagement process the Project Team presented a range of premium gas product options that have demonstrable associated environmental benefits, and that are currently available to ABAG POWER as a CTA operating in California. This included the following product types:

RESPONSIBLY SOURCED GAS (RSG)

Natural gas that is developed and procured using transparent standards for sustainability and includes gas supplied by certified minority business entities. An independent third-party "Trustwell" certification exists for this category that provides an overall rating assessing a company's methane monitoring and reduction efforts.

BLUE NATURAL GAS (BNG)

Natural gas that is delivered to end-use customers with bundled certified carbon offsets. This product may provide a cost-effective point of entry for program participants seeking to indirectly reduce their carbon footprint and support local climate protection goals. Blue Natural Gas has been offered by a number of utilities for many years, including some of ABAG POWER's regional industry peers³.

LOW CARBON TRANSPORTATION FUELS

This product category is for use in Compressed Natural Gas (CNG) fleet vehicles and fueling stations. Because CNG vehicles emit lower emissions profiles than gasoline or diesel-powered variants, financial credits are available from State and Federal programs, including California's Low Carbon Fuel Standard (LCFS)⁴ and the U.S. Department of Energy's Renewable Fuel Standard (RFS)⁵. These credits can be used to effectively offset associated cost premiums and/or support enhanced rebates to customers who replace aging CNG vehicles with Electric Vehicles (EVs).

RENEWABLES PORTFOLIO STANDARD (RPS) COMPLIANT GAS

This product category involves applying the RPS framework that has been used effectively in the electricity and transportation fuel sectors to the gas sector. It includes third-party verification (i.e., Green-e® certification) of a blended gas product that contains a minimum percentage of Renewable Natural Gas (RNG). SB 1383-compliant RNG supplies and other RNG and RSG content can be included.

³ https://www.cityofpaloalto.org/Departments/Utilities/Sustainability/Carbon-Neutral-Electricity-and-Natural-Gas

⁴ https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about

 $^{^{5}}$ https://www.epa.gov/renewable-fuel-standard-program

PROPOSED PRODUCTS AND PROGRAM DESIGN

Stakeholders were also presented with a range of customer programs for discussion, including:

COMPLIANCE SUPPORT PROGRAMS

For Members participating in one or more of the premium product procurement pools, ABAG POWER could provide support to help Members manage the related reporting and other compliance requirements.

TRANSITIONAL ELECTRIFICATION PROGRAMS

Members who participate in one or more of the premium product procurement pools could be provided a financial incentive to electrify existing gas-powered (vehicle or building) assets.

GHG ACCOUNTING AND VERIFICATION SUPPORT PROGRAMS

This service would provide standardized reports and executive dashboards that quantify the GHG emissions associated with the purchased gas products. These reports could be used by the Member to support local GHG Inventories and Climate Action Planning efforts.

NATURAL GAS EFFICIENCY AND DECARBONIZATION INCENTIVE PROGRAMS

Given that traditional energy efficiency incentives are a tool to support decarbonization goals in the gas sector, participating Members that elect to use a lower-carbon gas product (i.e., through participation in one of ABAG POWER's premium product procurement pools) could be eligible for incentives potentially funded by a portion of the revenues received through the premium product sales, as well as any "public goods" funding that can be secured.

The data collected at each roundtable and focus group was used to support iterative reprioritization of the preferred product list and update the preference for the programs presented as shown in Table 1, below.

PRODUCT REPRIORITIZATION

- Responsibly Sourced Natural Gas
- Blue Natural Gas
- · Biogas/RNG
- · Low-Carbon Transportation Fuels
- ✓ Transparent Renewables Portfolio Standard (RPS) Compliant Gas Products and Timelines

PROGRAMS

- **SB1383 Compliance Program**
- Transitional Electrification and Decarbonization Programs
- GHG Accounting and Verification Support Programs
- Natural Gas Efficiency and Decarbonization Incentive Programs

Table 1 Premium Products and Customer Programs Presented for Discussion.

OVERVIEW OF STAKEHOLDER ENGAGEMENT ACTIVITIES AND OUTCOMES

The goal of the stakeholder events was to provide a forum for a discussion on a range of issues relating to the development and implementation of new and expanded product and program offerings. Below is a summary of the meetings and outcomes.

STAKEHOLDER ENGAGEMENT

ROUND 1 (MAY 2021 - JULY 2021)

The first round of engagement allowed stakeholders to participate in framing the issues and opportunities while also contributing important perspectives about the relative value of the various product and program options. More than a dozen stakeholder events were held in Round 1.

ENGAGEMENT PARTICIPANTS ROUND 1

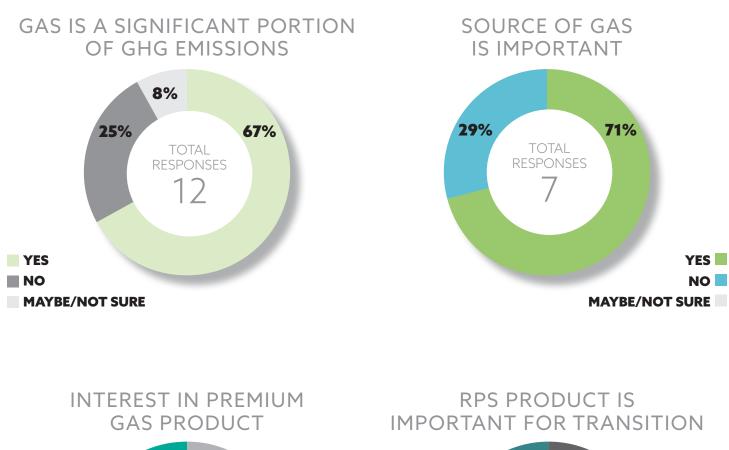
ROUNDTAB	LES	FOCUS GROUPS
MEMBERS	STAKEHOLDERS	PARTICIPANTS
 City of Benicia City of Cupertino City of Fremont City of Los Altos x2 City of Milpitas x2 City of Petaluma City of Pleasontan City of Saratoga County of Contra Costa x2 County of Santa Clara 	City of American Canyon City of Dublin MCE Clean Energy RDAF Energy Solutions Sonoma Water United Energy Trading	 Pacific Gas and Electric CalRecycle CCAs ✓ Central Coast Community Energy ✓ Silicon Valley Clean Energy Palo Alto Municipal Utility Bay Area RECAM/ZNE Alliance Vendors and Suppliers ✓ Shell ✓ Constellation ✓ United Energy Trading ✓ Clean Energy Fuels ✓ American Fuel Logistics ✓ RDAF Energy Solutions

Table 2 Participants in the Round 1 Stakeholder events.

The first round of events was successful in providing the Project Team with crucial information that allowed for the prioritization of Member and stakeholder programs and premium product preferences. These discussions

also provided key information about timing of SB 1383 implementation, violation levels and associated costs, and premium product procurement options available to ABAG POWER, including RNG supplies. The polling

responses provided further insights into key factors the Project Team used to develop the second round of events. Some of the key results of attendee polls are shown in Figure 1 below.



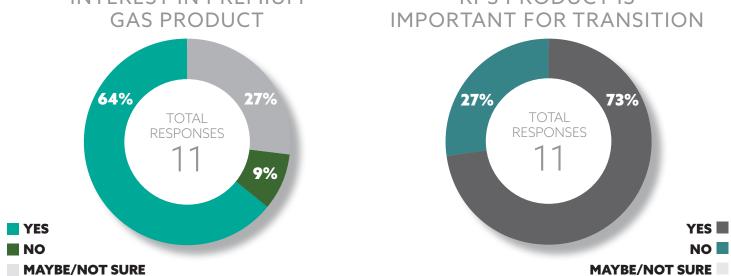


Figure 1 Key Results of Member and Stakeholder Polling Questions

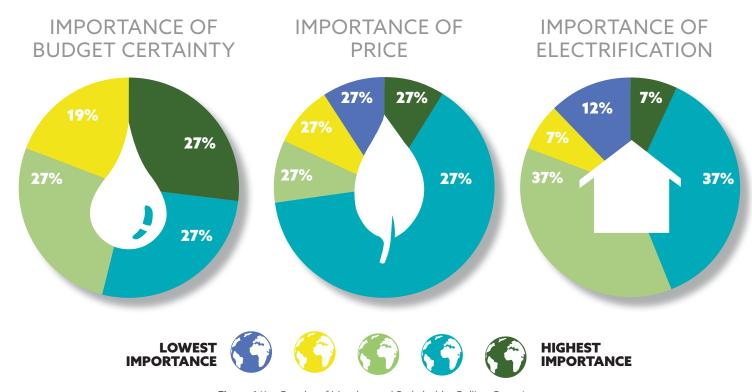


Figure 1 Key Results of Member and Stakeholder Polling Questions

SUMMARY OF KEY FINDINGS ROUND 1

- There are currently only 15 anaerobic digesters in California capable of producing SB 1383 compliant RNG, and only one that injects into the existing natural gas grid
- CalRecycle is supportive of, but not currently offering, a "match-making" service to help connect SB 1383 compliant RNG suppliers with buyers
- Enforcement of SB 1383 procurement requirements will begin in January 2022 (Note- the Project Team anticipates that enforcement of penalties may be delayed to allow time for jurisdictions to identify viable compliance options.)

- Participants were supportive of ABAG POWER acting as a "central buyer" for SB 1383 procurement
- ABAG POWER could provide valuable GHG
 Reporting support and/or act as a clearinghouse of
 information for Members. For instance, providing an
 annual GHG quantification report to all Members to
 support Climate Action Plan compliance
- ABAG POWER is well positioned to work with suppliers and project developers to identify SB 1383 compliant gas options for Members

STAKEHOLDER ENGAGEMENT

ROUND 2 (JULY 2021 - SEPTEMBER 2021)

The Project Team utilized key results from Round 1 to formulate the Roundtable agendas and polling questions for the second series of engagements. More than ten additional stakeholder events were held in Round 2 to inform ABAG POWER Members and stakeholders about findings to date, and modifications to product and program offerings based upon prior feedback.

ENGAGEMENT PARTICIPANTS ROUND 2

ROUNDTA	BLES	FOCUS GROUPS
MEMBERS	STAKEHOLDERS	PARTICIPANTS
 City of Albany City of Cupertino City of Fremont City of Los Altos City of Milpitas City of Pacifica City of Petaluma City of Pleasanton City of Salinas City of Saratoga City of Saratoga County of Contra Costa County of Santa Clara 	City of San Bruno Clean Energy Fuels Constellation Energy County of Solano RDAF Energy Solutions Shell Energy North America Sonoma Clean Power Sonoma County Water Town of Windsor United Energy Trading	 Potential Partners ✓ School Project for Utility Rate Reduction ✓ Bluesource Vendors and Suppliers ✓ Biofuels Energy ✓ Full Circle Renewables ✓ Amp Americas ✓ Pacific Summit Energy State Building Code Regulators ✓ California Building Standards Commission

Table 3 Participants in the Round 2 Stakeholder Events.

The Round 2 events were very successful in providing the Project Team with the confirmation of stakeholder interest in RSG and RNG supplies, the need for development of SB 1383-compliant RNG supply, and detailed pricing information related to premium supply options. The results from Round 2 also confirmed price-contingent interest in beneficial premium gas products, including instate, SB 1383-compliant RNG.

The engagement process started with a second series of Focus Groups, followed by final Roundtables for ABAG POWER Members and stakeholders. The Focus Groups were selected based on findings from Round 1, and the content for the Roundtables was developed based on all of the stakeholder engagements that had been completed to date.

IF ABAG POWER COULD OFFER A RESPONSIBLY SOURCED GAS (RSG) TOTAL 50% YES PRODUCT AS A RESPONSES NO DEFAULT PRODUCT, MAYBE/DEPENDS **WOULD THERE BE ON THE PRICE VALUE IN THAT?** IF ABAG POWER COULD OFFER A PREMIUM BLUE GAS PRODUCT THAT TOTAL **73% YES INCLUDES CERTIFIED** RESPONSES NO CARBON OFFSETS. MAYBE/DEPENDS WOULD THAT BE OF **ON THE PRICE** INTEREST/VALUE TO YOUR JURISDICTION?

WOULD YOUR
JURISDICTION/
ORGANIZATION
CONSIDER ENROLLING
IN AN ABAG POWER
PROGRAM THAT
PROVIDES EASY
ACCESS TO SB 1383
COMPLIANT RNG
SUPPLIES?

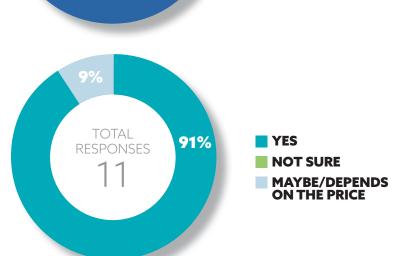


Figure 2 Member Responses to Poll Questions Regarding Premium Gas Product Options

SUMMARY OF KEY FINDINGS ROUND 2

- 80% of respondents indicated they do not currently have a SB 1383 procurement strategy in place
- Of the products presented, jurisdictions were most interested in Renewable Natural Gas (RNG)
- In-state RNG supplies are nascent, and will require long-term (e.g., 10year) purchase commitments and estimated project development timeframes of 12-24 months
- Most Members indicated they were not interested in purchasing a premium Compressed Natural Gas (CNG) product

KEY FINDINGS

Throughout the engagement process, there was general consensus among participants that reducing GHG emissions was a high priority within their organization, and that transitioning from fossil-based natural gas supply will play an important role in achieving their climate protection and sustainability goals. Natural gas consumption was consistently ranked as a significant source of GHG emissions in participants' communities and organizations. The majority of stakeholders expressed a willingness to utilize a premium gas supply option to lower their

GHG emissions. Polling responses indicated a high degree of pricesensitivity to product pricing, indicating that the product would likely need to be a blend of different supply options to avoid being cost prohibitive. Stakeholders discussed

how California used a similar Renewables Portfolio Standard (RPS) approach to encourage the use of higher-priced renewable electricity (i.e., wind, solar photovoltaic, etc.) in order to increase the supply and demand for renewables in the electricity sector ultimately resulting in a reduced e cost of those premium products. The Project Team suggests that the same market forces can be leveraged in the natural gas sector to increase the supply and demand and

decrease the cost for RNG supplies.

Many stakeholders confirmed that transitioning to a future without reliance upon fossil fuels was an important priority for their organization, but also indicated that the transition will be challenging given the extent of existing natural gas infrastructure and equipment (i.e., boilers, CNG vehicles, Combined Heat and Power (CHP) facilities, appliances, etc.), and the associated costs of early retirement and replacement. While participants expressed consistent support for electrification as a means to achieve clean energy

"TRANSITIONING

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WITHOUT

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PRIORITY"

and climate protection goals, stakeholders also underscored the need for flexibility and financial support to facilitate a feasible and fair transition that does not exacerbate existing social or economic challenges.

A consistent topic throughout the engagement process was SB 1383, which includes new mandates for California cities, counties, and other government agencies relating to procurement of renewable resources produced from organic waste diversion at local landfills. CalRecycle staff met with the Project Team on multiple occasions to provide detailed information about SB 1383 and its role leading implementation and enforcement.

SB 1383-COMPLIANT RNG PROCUREMENT PROGRAM

In-state RNG produced from eligible diverted organic waste streams

1. MEMBERS ARE INTERESTED IN AN SB 1383 PROCUREMENT PROGRAM

- a. SB 1383 enforcement begins on Jan. 1, 2022
- b. 80% of respondents do not have a procurement plan
- c. Mulch and compost are currently the only "market-ready" products for jurisdictions to meet their procurement target. Some Members indicated that they could not utilize enough mulch or compost to meet their compliance obligations.
- d. Members and stakeholders indicated interest in purchasing SB 1383-compliant RNG from ABAG POWER

2. MEMBERS PREMIUM PRICE LIMITS

- a. 70% of respondents may consider paying up to \$2.00 per therm for SB 1383-compliant RNG
- b. 10% of respondents may consider paying up to \$3.50 per therm for SB 1383-compliant RNG

3. POTENTIAL ROLES FOR ABAG POWER

- a. Coordination of SB 1383-compliant RNG development
- b. Procurement of SB 1383-compliant RNG (i.e., "central buyer")
- c. Supply/Usage data and reporting (i.e., SB 1383 compliance)

KEY FINDINGS CONT.

Jurisdictions and agencies subject to the SB 1383 procurement mandates can procure various resources to

meet their obligations, including mulch, compost, electricity generated from diverted organic waste, or RNG generated from diverted organic waste. While there is growing stakeholder awareness of SB 1383 and the various compliance pathways, the majority of participating jurisdictions

also reported that they do not yet have a strategy in place for meeting their procurement obligations.

Participants consistently reported that SB 1383 compliance is a highpriority and near-term concern. However, the Project Team has also determined that the supply of SB 1383-compliant products is severely limited. During Focus Groups, several gas suppliers and project

"PARTICIPATION IN THE EVENTS WAS CONSISTENTLY ROBUST"

developers stated that competing market demand for RNG (LCFS/RIN vehicle fuel, electric generation, building heat, etc.) makes the development of SB 1383-compliant gas an economic challenge.

Generally, Members and stakeholders indicated in poll responses that they see value in ABAG POWER

fulfilling a role as a central buyer for SB 1383-compliant gas supply. Individual cities and counties

will have difficulty achieving the necessary economies of scale and efficiency needed to develop local supplies of RNG, but ABAG POWER has sufficient scale and existing procurement processes that could help drive down cost and

increase supplies over time.

Another program of relative interest is a Low-Carbon Transportation fuel supply option (incl. LCFS, and RIN). The Project Team suggests that this program can be efficiently implemented and may attract new participants that have existing CNG vehicles or are planning new CNG stations, particularly because the revenues generated from State and Federal credits can be profitable. The Project Team indicated that ABAG POWER could design a program offering that allocates a percentage of the credits to a fleet electrification incentive: the remaining portion could be used to reduce program expenses.

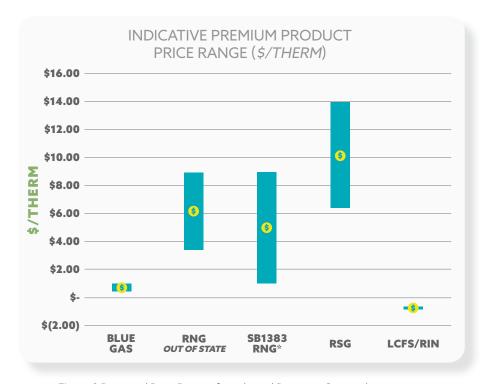


Figure 3 Projected Price Ranges for selected Premium Gas product options.

KEY FINDINGS CONT.

LOW-CARBON TRANSPORTATION FUEL PROGRAM

- 1. ABAG POWER has two existing accounts that are eligible for participation in State (LCFS) and Federal (RFS) programs
- 2. 8% of Members polled indicated that they have plans to purchase new compressed natural gas (CNG) vehicles.

While 67% of Members polled indicated they would be interested in a vehicle fuel program, most Members do not have CNG vehicles. There is potential for the program to attract additional participants.

IF ABAG POWER COULD OFFER A PREMIUM LCFS COMPLIANT PRODUCT FOR CNG-POWERED VEHICLES, WOULD THAT BE OF INTEREST?

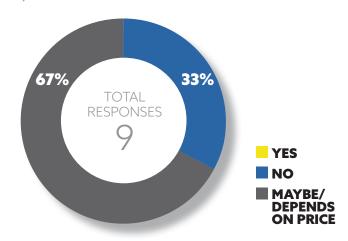


Figure 4 Member Responses Regarding Low Carbon Transportation Fuel Options

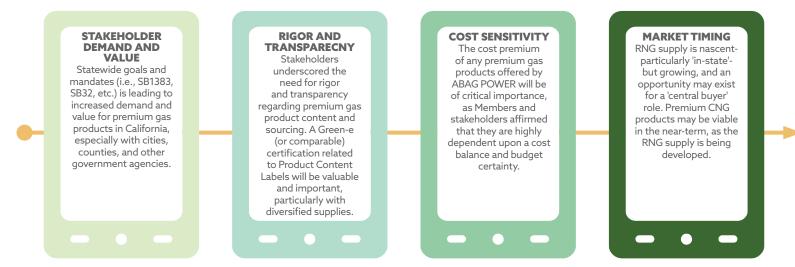


Figure 5 Key Findings from Round 1 of the Stakeholder Engagement Process

During the stakeholder engagement meetings, attendees indicated they saw value in RSG and RNG supplies, provided that transparent thirdparty certification accompanied the premium gas products. Similar to other products, attendees indicated significant price sensitivity in their consideration of a premium product as

a replacement for conventional (fossil-based) natural gas. Unfortunately, the current supply of in-state renewable natural gas is extremely limited, and several competing use cases and programs affect the market availability and price of premium gas options.

KEY FINDINGS CONT.

The second round of stakeholder events were tailored to expand upon key values the Project Team would need to develop and optimize the program and supply portfolio models. The discussions illuminated the current Member demand for assistance with SB 1383 compliance and procurement planning. In addition, the Project Team obtained valuable insights regarding price sensitivity.

PREMIUM GAS PRODUCT DEMAND

The implementation of SB 1383 on January, 1 2022, is going to lead to increased demand and value for premium gas products in California, especially with cities, counties, and other government agencies.

RENEWABLE GAS SUPPLY

SB 1383 compliant RNG supply is nascent, and an opportunity may exist for a "central buyer" role. A majority of ABAG POWER Members indicated interest in ABAG POWER providing assistance in securing RNG supply.

TRANSPORTATION RENEWABLE FUEL AND ELECTRIFICATION

Members expressed an interest in participating in an LCFS/RINs program. As part of that be a set-aside to fund rebates for the replacement of natural gas to electric equipment.

COST SENSITIVITY

The cost premium of any gas products offered by ABAG POWER will be of critical importance. However, the ability to obtain RNG to avoid SB 1383 potential penalties increases the acceptable premium, as Members and stakeholders affirmed.

Figure 6 Key Findings from Round 2 of the Stakeholder Engagement Process

CONCLUSIONS AND PRELIMINARY RECOMMENDATIONS

ABAG POWER's stakeholder engagement process has produced valuable feedback collected through an extensive series of Roundtable, Focus Group, and ad-hoc Office Hour events. Throughout this process, most participants agreed that reducing GHG emissions was a very high priority within their organization's goals and transitioning from fossil-based natural gas supply could become an important strategy in achieving their sustainability goals. Climate Action Plans and other sustainability-related goals were a recurring topic and of significant near-term concern for many public agencies. Offering a program to assist jurisdictions with SB 1383 compliance tracking and reporting requirements would be a viable service offering that would be of significant value to Members, particularly since

many are struggling with how to BUILDINGS comply with this mandate.

ELECTRIFICATION

In general, the electrification of buildings, appliances, or vehicles presents a challenge for the program because it results in departing (gas) load, thus creating a negative financial impact. Recognizing that electrification is a high priority for Members and may play a crucial role in achieving climate protection goals, stakeholder feedback is encouraging ABAG POWER to create program elements that support beneficial fuelswitching. These elements could result in an increase to the program's Membership, thereby increasing load in the mid-term that can bolster the program's financial position and provide an influx of funding to support enhanced incentives for electrification.

- ABAG POWER could consider funding an electrification incentive for buildings
- · Funding for the incentive could be allocated from participation in the RPS-style products, or through a surcharge applied to each Member's load

VEHICLES

- · ABAG POWER could consider funding an electrification incentive for fleet vehicles
- · Funding for the incentive could be allocated from revenue generated from LCFS/RFS credits

RENEWABLE NATURAL GAS

Of the product options presented, stakeholders and current Members expressed high levels of interest in RNG and moderate levels of interest

RENEWABLE NATURAL GAS SB 1383 **LOW-CARBON TRANSPORTATION FUEL IN-STATE** IN/OUT OF STATE · Supply is available at various • There is no current "spot" market carbon intensities • SB 1383-eligible RNG supply is extremely limited and may require ABAG POWER to · Vehicle fuel markets (LCFS, RFS) drive execute an offtake agreement for a project value and create competing use cases prior to 12-24 month development for electricity generation and space/ water heating • Offtake agreements typically desire 10+ year term including a fixed-price ABAG POWER could potentially join SPURR's program through a Letters of Interest/Intent from jurisdictions Memorandum of Understanding or may be helpful if the program desires to similar agreement pursue this procurement pathway

Figure 7 Availability of Renewable Natural Gas Supplies

CONCLUSIONS AND PRELIMINARY RECOMMENDATIONS CONT.

in LCFS/RIN Compressed Natural Gas and Blue Natural Gas (with bundled carbon offsets) as considerations for premium product offerings.

for premium product offerings. Respondents also indicated that the pricing of these products were a significant factor in their consideration. The majority of respondents indicated that their organization had opted to procure a premium electricity product based upon similar rationale regarding reducing environmental

impacts from daily operation of their

facilities.

While RNG was consistently ranked as a valuable product because of its potential for GHG reductions, the in-state supply of RNG is currently extremely limited and often requires a long-term purchase contract at the time of project development, rather than widely being available in a "spot" market like conventional natural gas. New regulatory rules and legislative mandates (i.e., SB 1383) are expected to gradually increase the amount of instate supply over the next 2-5 years, but based on the stakeholder engagement findings, securing in-state supply of RNG in the immediate near-term is not currently feasible. Development of a program to assist jurisdictions with their SB 1383 compliance and tracking requirements appeared to be a highpriority opportunity for ABAG POWER, but suppliers and project developers both noted a lack of existing compliant natural gas supply. Respondents indicated both that they saw value in the program operating within a

central buyer role, and that the pricing of this product is a significant factor in their consideration of compliance pathways.

"PRICING OF THESE PRODUCTS WERE A SIGNIFICANT FACTOR IN THEIR CONSIDERATION"

ABAG POWER should further consider investigation and/or development of a SB 1383 Program. The program could consist of RNG supply, data collection and management, reporting, and project development coordination. If the organization decides to pursue this option:

- ABAG POWER could obtain letters of interest from jurisdictions indicating their desired participation in the program
- Using the letters of interest, ABAG POWER could initiate non-binding discussions with developers and suppliers of SB 1383 compliant gas in order to obtain indicative pricing and contract details

LOW-CARBON TRANSPORTATION FUELS

Meanwhile, RNG produced outside of California is readily available for purchase, but is ineligible for SB 1383 compliance, and faces a number of competing use cases. Programs like California's LCFS and the Department of Energy's RFS/RIN programs are increasing the value of RNG as a vehicle fuel and largely determine the market price, with higher 'credits' awarded

to lower carbon intensity scores.

Members and stakeholders both
expressed interest in the development
of a low-carbon transportation fuel

program. Furthermore, the RFS/RIN and LCFS programs permit and support the use of out-of-state RNG supply. During a focus group meeting with the School Project for Utility Rate Reduction (SPURR), a potential partnership

opportunity was identified that may facilitate ABAG POWER's participation in the vehicle fuel markets that would allow the organization to provide LCFS/ RIN compliant CNG cost effectively in the near-term. SPURR has already developed and implemented an LCFS/ RIN program and conducted public solicitations to select suppliers that are already delivering premium CNG products to school districts throughout ABAG POWER's service territory. The potential exists to leverage the SPURR program to create efficiencies and economies of scale that lower cost and increase value for participating customers.

BLUE NATURAL GAS

The Blue Gas premium product option is a viable, low-cost offering that was of interest to some Members and stakeholders. ABAG POWER could offer a flat, fixed-rate structure as an option to all Members, that would cover the cost of including enough certified carbon offsets to offset all GHGs associated with gas consumption. Members indicated a preference for carbon offsets that met rigorous standards for quality

CONCLUSIONS AND PRELIMINARY RECOMMENDATIONS CONT

and transparency, and that details project locations and offset protocols were of critical importance.

To design a Blue Natural Gas product procurement strategy, ABAG POWER could develop a similar approach to a model currently in use by the City of Palo Alto Utilities (CPAU). CPAU's offering attempts to minimize cost and in-house administrative burden through the use of brokers and suppliers to manage offsets and retire carbon offsets on behalf of CPAU and sourcing older vintages of carbon offsets from outside of the United States.

The Center for Resource Solutions' (CRS) "Green-e" verification could be used as a third-party certification for carbon offset projects. Because certification was ranked as a valuable program element, validating carbon offsets through Green-e's high standards will provide guarantees that carbon offset projects are validated and meet promised environmental impacts.

RENEWABLES PORTFOLIO STANDARD APPROACH

The majority of participants agreed that a Renewables Portfolio Standardcompliant gas product option is a viable tool that can increase the supply and demand while lowering the cost for RNG supplies. Of the product options presented, stakeholders and current Members expressed high levels of interest in RNG, LCFS/RIN, and Blue Natural Gas as their top priorities. It is also worth noting that participants would value RSG sourced from certified minority and disadvantaged business entities, which could provide a lowercost foundation for an RPS-compliant premium gas product that helps to constrain the retail price. Other findings and recommendations include:

- · The products that could make up RPS gas are generally available if there is interest among the Membership and value assigned to out-of-state RNG
- · ABAG POWER could establish a proposed timeframe and blend of RPS gas for the entire Membership
- Alternatively, Letters of Interest/ could he obtained Intent from iurisdictions desiring participate an RPS gas Program
- · The usage volumes can be used in the RFPs to obtain price quotes for RNG, RSG, and Blue Gas supply

 The resulting price discovery can then be used to optimally purchase a proportional amount of each desired premium product to achieve the desired cost of RPS gas

Based on feedback provided by respondents, the Project Team recommends further evaluation of the costs and benefits relating to offering a third-party certified RPScompliant gas product consisting of a blend of different sources and types of gas, including a minimum percentage of RNG that increases over time. A price model can be developed to determine different supply type combinations that could produce a weighted average cost of gas falling within the acceptable range of pricing that stakeholders expressed. This analysis would also factor the cost of securing maintaining rigorous transparent third-party certification (i.e., Green-e), as well as anticipated market trends and forward prices.



RENEWABLES PORTFOLIO STANDARD (RPS) APPROACH

Figure 8 An Example Configuration of an RPS-Compliant Premium Gas Product